

Subpart RR—Geologic Sequestration of Carbon Dioxide

SOURCE: 75 FR 75078, Dec. 1, 2010, unless otherwise noted.

§ 98.440 Definition of the source category.

(a) The geologic sequestration of carbon dioxide (CO₂) source category comprises any well or group of wells that inject a CO₂ stream for long-term containment in subsurface geologic formations.

(b) This source category includes all wells permitted as Class VI under the Underground Injection Control program.

(c) This source category does not include a well or group of wells where a CO₂ stream is being injected in subsurface geologic formations to enhance the recovery of oil or natural gas unless one of the following applies:

(1) The owner or operator injects the CO₂ stream for long-term containment in subsurface geologic formations and has chosen to submit a proposed monitoring, reporting, and verification (MRV) plan to EPA and received an approved plan from EPA.

(2) The well is permitted as Class VI under the Underground Injection Control program.

(d) *Exemption for research and development projects.* Research and development projects shall receive an exemption from reporting under this subpart for the duration of the research and development activity.

(1) *Process for obtaining an exemption.* If you are a research and development project, you must submit the information in paragraph (d)(2) of this section to EPA by the time you would be otherwise required to submit an MRV plan under § 98.448. EPA will use this information to verify that the project is a research and development project.

(2) *Content of submission.* A submission in support of an exemption as a research and development project must contain the following information:

(i) The planned duration of CO₂ injection for the project.

(ii) The planned annual CO₂ injection volumes during this time period.

(iii) The research purposes of the project.

(iv) The source and type of funding for the project.

(v) The class and duration of Underground Injection Control permit or, for an offshore facility not subject to the Safe Drinking Water Act, a description of the legal instrument authorizing geologic sequestration.

(3) *Determination by the Administrator.*

(i) The Administrator shall determine if a project meets the definition of research and development project within 60 days of receipt of the submission of a request for exemption. In making this determination, the Administrator shall take into account any information you submit demonstrating that the planned duration of CO₂ injection for the project and the planned annual CO₂ injection volumes during the duration of the project are consistent with the purpose of the research and development project.

(ii) Any appeal of the Administrator's determination is subject to the provisions of part 78 of this chapter.

(iii) A project that the Administrator determines is not eligible for an exemption as a research and development project must submit a proposed MRV plan to EPA within 180 days of the Administrator's determination. You may request one extension of up to an additional 180 days in which to submit the proposed MRV plan.

§ 98.441 Reporting threshold.

(a) You must report under this subpart if any well or group of wells within your facility injects any amount of CO₂ for long-term containment in subsurface geologic formations. There is no threshold.

(b) *Request for discontinuation of reporting.* The requirements of § 98.2(i) do not apply to this subpart. Once a well or group of wells is subject to the requirements of this subpart, the owner or operator must continue for each year thereafter to comply with all requirements of this subpart, including the requirement to submit annual reports, until the Administrator has issued a final decision on an owner or operator's request to discontinue reporting.

(1) *Timing of request.* The owner or operator of a facility may submit a request to discontinue reporting any

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time after the well or group of wells is plugged and abandoned in accordance with applicable requirements.

(2) *Content of request.* A request for discontinuation of reporting must contain either paragraph (b)(2)(i) or (b)(2)(ii) of this section.

(i) For wells permitted as Class VI under the Underground Injection Control program, a copy of the applicable Underground Injection Control program Director's authorization of site closure.

(ii) For all other wells, and as an alternative for wells permitted as Class VI under the Underground Injection Control program, a demonstration that current monitoring and model(s) show that the injected CO₂ stream is not expected to migrate in the future in a manner likely to result in surface leakage.

(3) *Notification.* The Administrator will issue a final decision on the request to discontinue reporting within a reasonable time. Any appeal of the Administrator's final decision is subject to the provisions of part 78 of this chapter.

§ 98.442 GHGs to report.

You must report:

- (a) Mass of CO₂ received.
- (b) Mass of CO₂ injected into the subsurface.
- (c) Mass of CO₂ produced.
- (d) Mass of CO₂ emitted by surface leakage.
- (e) Mass of CO₂ equipment leakage and vented CO₂ emissions from surface equipment located between the injection flow meter and the injection wellhead.
- (f) Mass of CO₂ equipment leakage and vented CO₂ emissions from surface equipment located between the produc-

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tion flow meter and the production wellhead.

(g) Mass of CO₂ sequestered in subsurface geologic formations.

(h) Cumulative mass of CO₂ reported as sequestered in subsurface geologic formations in all years since the facility became subject to reporting requirements under this subpart.

§ 98.443 Calculating CO₂ geologic sequestration.

You must calculate the mass of CO₂ received using CO₂ received equations (Equations RR-1 to RR-3 of this section), unless you follow the procedures in § 98.444(a)(4). You must calculate CO₂ sequestered using injection equations (Equations RR-4 to RR-6 of this section), production/recycling equations (Equations RR-7 to RR-9 of this section), surface leakage equations (Equation RR-10 of this section), and sequestration equations (Equations RR-11 and RR-12 of this section). For your first year of reporting, you must calculate CO₂ sequestered starting from the date set forth in your approved MRV plan.

(a) You must calculate and report the annual mass of CO₂ received by pipeline using the procedures in paragraphs (a)(1) or (a)(2) of this section and the procedures in paragraph (a)(3) of this section, if applicable.

(1) For a mass flow meter, you must calculate the total annual mass of CO₂ in a CO₂ stream received in metric tons by multiplying the mass flow by the CO₂ concentration in the flow, according to Equation RR-1 of this section. You must collect these data quarterly. Mass flow and concentration data measurements must be made in accordance with § 98.444.

$$CO_{2T,r} = \sum_{p=1}^4 (Q_{r,p} - S_{r,p}) * C_{CO_{2,p,r}} \quad (\text{Eq. RR-1})$$

Where:

CO_{2T,r} = Net annual mass of CO₂ received through flow meter r (metric tons).

Q_{r,p} = Quarterly mass flow through a receiving flow meter r in quarter p (metric tons).

S_{r,p} = Quarterly mass flow through a receiving flow meter r that is redelivered to another facility without being injected into your well in quarter p (metric tons).